

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A wafer processing system comprising:

a load lock having a pedestal configured to lift a single wafer from a plurality of pins to support a only the single wafer ~~thereon~~ during a pump down of the load lock, the pedestal being an only wafer support located within the load lock, the load lock having an integral cooling unit for cooling the single wafer, the load lock being separated from a load chamber by a closeable opening that faces a vacuum robot in the load chamber;

a transport module having a the load chamber, a transfer chamber, and a pass-through chamber located between the load chamber and the transfer chamber, the load chamber being coupled to the load lock;

an intermediate process module coupled to the load chamber and the transfer chamber;

a loader configured to receive a removable cassette containing a plurality of wafers to be processed;

a an atmospheric robot configured to transfer a wafer between the load lock and the loader, the atmospheric robot being under atmospheric pressure during normal operation;

a first set of process modules coupled to the load chamber; and

a second set of process modules coupled to the transfer chamber.

Claim 2 (original): The system of claim 1 wherein a process module in the first set of process modules includes a pre-clean module.

Claim 3 (original): The system of claim 1 wherein a process module in the first set of process modules includes a physical vapor deposition module.

Claim 4 (original): The system of claim 1 wherein a process module in the first set of process modules includes a chemical vapor deposition module.

Claim 5 (original): The system of claim 1 wherein a process module in the second set of process modules includes a pre-clean module.

Claim 6 (original): The system of claim 1 wherein a process module in the second set of process modules includes a chemical vapor deposition module.

Claim 7 (original): The system of claim 1 wherein a process module in the second set of process modules includes a physical vapor deposition module.

Claim 8 (canceled)

Claim 9 (original): The system of claim 1 wherein the intermediate process module is configured as a degas module.

Claim 10 (original): The system of claim 1 wherein the pass-through chamber is configured as a cooling station.

Claim 11 (original): The system of claim 1 wherein the intermediate process module is configured as a pre-clean module.

Claim 12 (original): The system of claim 1 wherein the intermediate process module is configured as a PVD module.

Claim 13 (original): The system of claim 1 wherein the intermediate process module is configured as a CVD module.

Claims 14-16 (canceled)

Claim 17 (currently amended): A wafer processing system comprising:

- a load lock having only one pedestal for supporting a wafer thereon during a pump down of the load lock, the pedestal having only one wafer support for supporting only one wafer at a time, the pedestal being configured to lift a wafer from a plurality of pins, the load lock being separated from a first chamber by a closeable opening;

- a transport module having a the first chamber, a second chamber, and a pass-through chamber between the first chamber and the second chamber, the first chamber being coupled to the load lock by way of the closeable opening;

- a loader configured to receive a removable cassette containing a plurality of wafers to be processed;

- a first robot configured to transfer a wafer between the load lock and the loader, the first robot being under atmospheric pressure during normal operation;

- an intermediate process module coupled to the first chamber;

- a first process module coupled to the first chamber;

- a second process module coupled to the second chamber;

- a second robot configured to transfer a wafer between the load lock and the pass-through chamber, the second robot being under vacuum during normal operation in the first chamber and facing the closeable opening; and

- a third robot configured to transfer a wafer between the pass-through chamber and the second process module, the third robot being under vacuum during normal operation.

Claim 18 (canceled)

Claim 19 (previously presented): The system of claim 17 wherein the pedestal is water-cooled.

Claim 20 (original): The system of claim 17 wherein the intermediate process module is also coupled to the second chamber.

Claim 21 (original): The system of claim 17 wherein the pass-through chamber is configured as a cooling station.

Claims 22-24 (canceled)